STOM CONOPS

Ship to Objective Maneuver
Concept of Operations

07 Feb 03

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Purpose of Brief:

- To describe the purpose of STOM CONOPS.
  - STOM CONOPS is designed to provide an operational context in order to bridge conceptual thought to identifying capabilities and requirements.

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STOM CONOPS:

The *STOM CONOPS* describes **one way** in which the Marine Corps can conduct STOM in the 2015 timeframe.

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Definition:

STOM is conducting combined arms maneuver through and across the water, air, and land of the littoral battlespace directly to inland objectives. STOM is not aimed at seizing a beach for lodgment, but at projecting combat units ashore in their fighting formations against a decisive objective and sustaining them to ensure mission accomplishment.

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Development of the STOM CONOPS applied these principles to answer the following questions:

- How much?
- How fast?
- How far?
- By what means?
- In what configuration?

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Planning Factors:

- The Marine Corps' mission remains as prescribed in the National Security Act of 1947 (amended).
- Principal end items include AAAV, MV-22, AH-1Z, UH-1Y, CH-53E(SLEP), STOVL JSF, LW-155, HIMARS, EFSS, LAV(SLEP), M1A1, MTVR, LVS-R, CLAWS, UAV/UCAV, ABV, and other significant programs and initiatives.
- One squadron of six MPF(F) ships with organic LCU(R) or equivalent landing craft will be available to include HSVs.
- Marine forces task-organize a sea-based Marine Expeditionary Brigade (MEB) from forward-deployed ESGs and elements of the future MPF.

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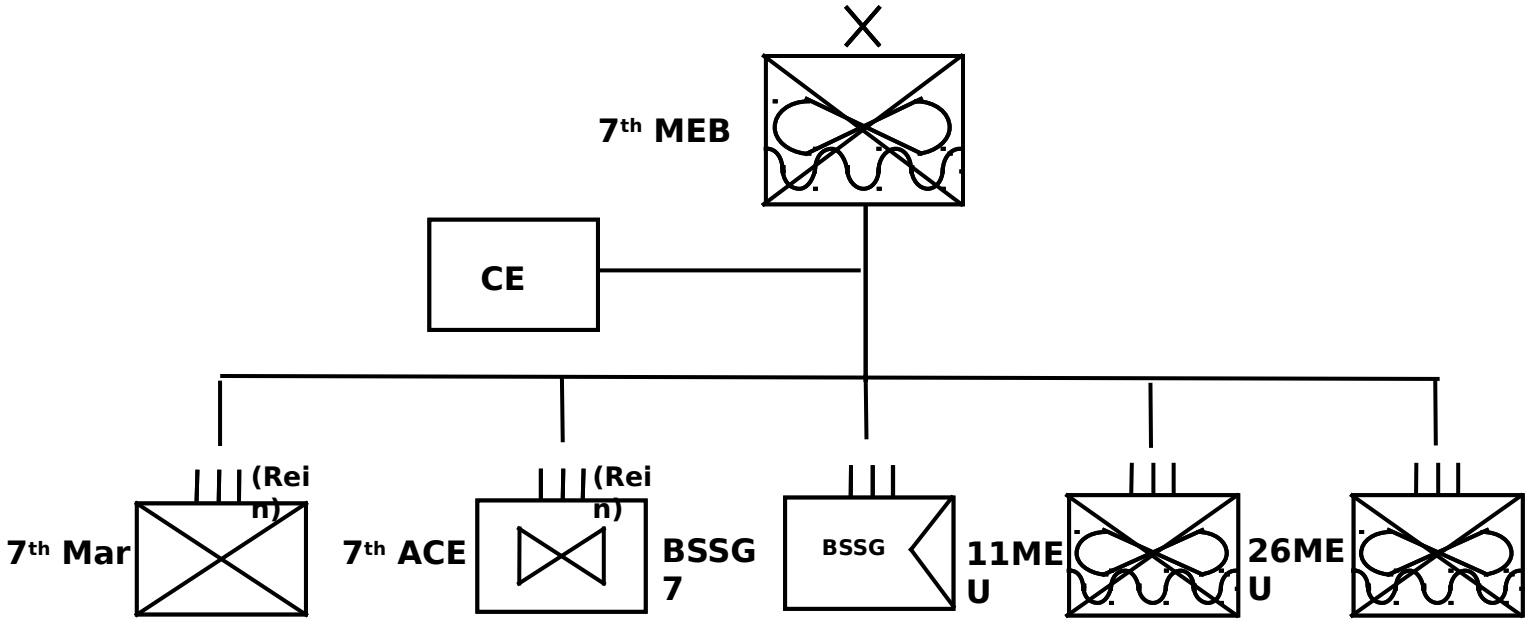
STOM MEB Organization



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Planning Factors:

- The Baseline 2015 MEB T/O and T/E was used.
- The surface battlespace begins 25 nautical miles (nm) over the horizon (OTH) and extends inland for another 175 nm for a total of 200 nm.
- The LW 155, EFSS, and HIMARS are the organic, indirect fire systems.
- UAVs are used throughout the battlespace for intelligence gathering, decoys, weapons delivery, communications relay, and terminal guidance since they reduce the demands on manned aircraft for long loiter time missions.

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Planning Factors:

- The MAGTF uses FORCEnet to exercise command and control within a continuum comprised of sea-based, en route, and land-based locations.
- The MPF(F) provides the combatant commander the ability to rapidly constitute a substantial, sustainable combat capability that is afloat in theater, ready to project maneuver elements ashore for operations as required.
- The amphibious force must be able to conduct forcible entry operations against the enemy’s integrated antiaccess defense.

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Scenario:

- Winter of 2015
- MAGTF's participation in a larger JTF campaign.
- The JOA is the southern area of Karona that borders the Sea of Karona and controls international transshipment.
- Rapidly developing situation/scenario
- DPG scenario lineage

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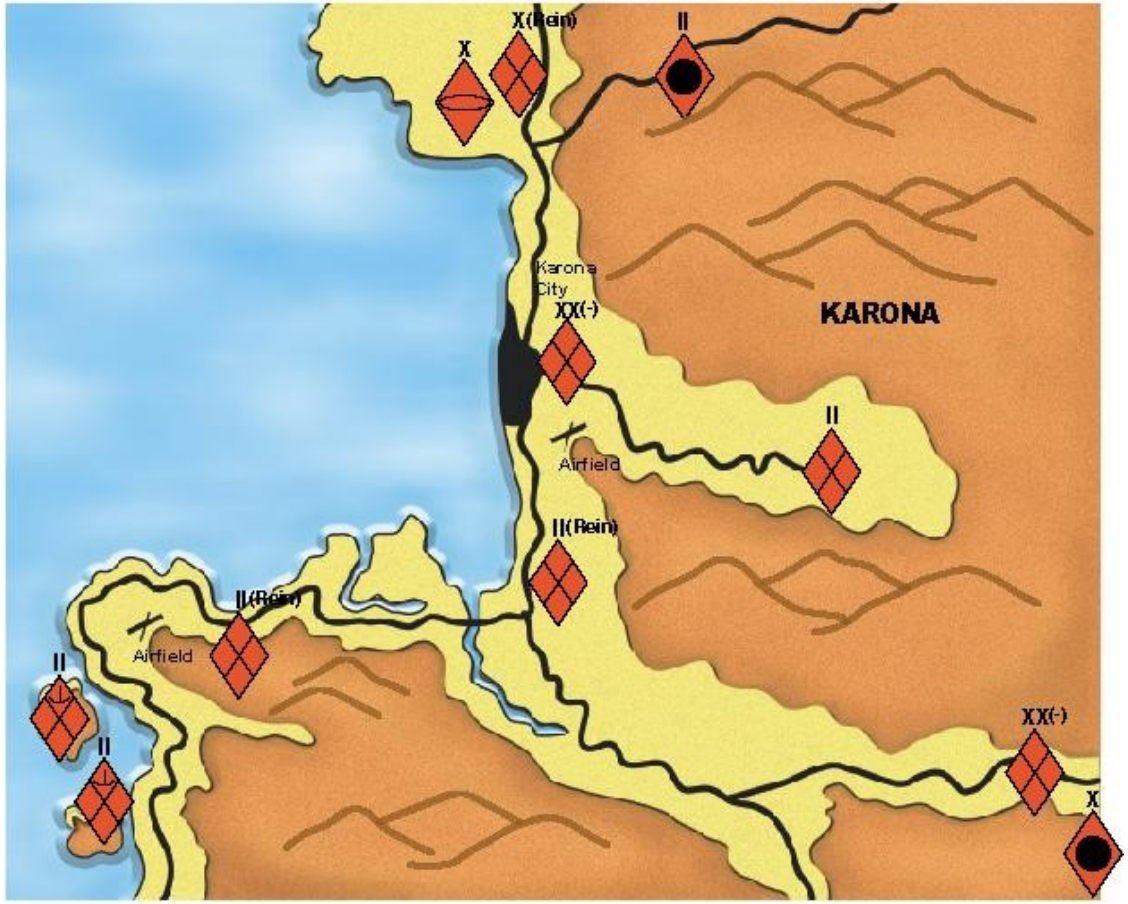
Enemy Disposition

-INF/MECH BGDEs



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STOM Force Closure:

- ESG fwd presence in theatre
- Naval Force Flow Part of JTF FDOs
- Multidimensional Force Closure
  - -MEB closure within 7 days of start
    - -Amphibs
    - -MPF(F)
    - -Comm Air
    - -Strat Air
    - -Self Deploy
    - -HSV

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MEB Troop List

MEUx2	**4,642**
MEB FIE	**9,316**
Total	**13,958**

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MEB Equipment List

Principal End Items	
AAAV	134
LAV	110
M1 Tank	37
M88 Recovery Vehicle	9
ABV	5
EFSS	24
LW 155	18
HIMARS	6
HMMWV (all variants)	1,349
MTVR (all variants)	530
LVS (all variants)	70
Engr Equipment	285
Total Vehicles	**2,535**

Aircraft	
MV-22	70
UH-1Y	15
AH-1Z	30
CH-53 (SLEP)	28
UAV	10
STOVL JSF52	
KC-130J	12
AEA	5
Total	**222**

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Navy Force Flow

	Day 0			D DAY	D+1	D+5	D+6	D+7	D+8	D+9	D+10	D+12	D+13	D+14		
	C-3	C+0	C+1	C+2	C+3	C+7	C+8	C+9	C+10	C+11	C+12	C+14	C+15	C+16	TOT	
CVN			1-F									1-W	1-J		3	CVN
CG		1-F	2-F		1-M						1-W	1-W	2-J	2-A	10	CG
DDG		2-F	3-F		1-M						1-W	2-W	4-J	3-A	16	DDG
DD(X)			1-F		1-M						1-W			1-A	4	DD(X)
MPF(F)					6-D										6	MPF(F)
SSGN					1-F		1-W								2	SSGN
LHD			1-F		1-M							1-W			3	LHD
LPD-17			1-F		1-M							1-W			3	LPD-17
LS41			1-F		1-M							1-W			3	LSD-41

A= Atlantic
D= Diego Garcia
F= Forward Deployed
J= Japan
M= Mediterranean
W= Westpac

D+8 = 12 CG/DDG/DD(X), 2 SSGN
D+14 = 30 CG/DDG/DD(X), 2 SSGN

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Mission:
On order, 7th MEB conducts littoral penetrations in the vicinity of Karona city and aggressor airfield to seize JTF Objective C, concurrently deploys forces in the vicinity of camel highway to seize JTF Objective B in order to isolate Karona city, blocks enemy reinforcements, and enable the flow of follow-on forces. Be prepared to conduct offensive operations to support the seizure of JTF Objectives D and E in order to neutralize enemy anti-access threats to shipping within the straits and be prepared to conduct battle
handover with follow-on forces as directed.

Concept of Operations:
At H-hour on D+8, 7th MEB conducts an initial littoral penetration within LPA Richmond as a blocking force in the vicinity of Karona City. On order, continue the attack in support of JTF offensive operations. During this phase, the GCE is the main effort and conducts a two-battalion surface and a two-battalion vertical assault to block elements of the infantry battalion and to delay possible counterattacks by other enemy units. Be prepared to conduct operations to attack in zone to seize JTF Objectives D and E. MEB reserve on D-day consists of one battalion-sized unit.

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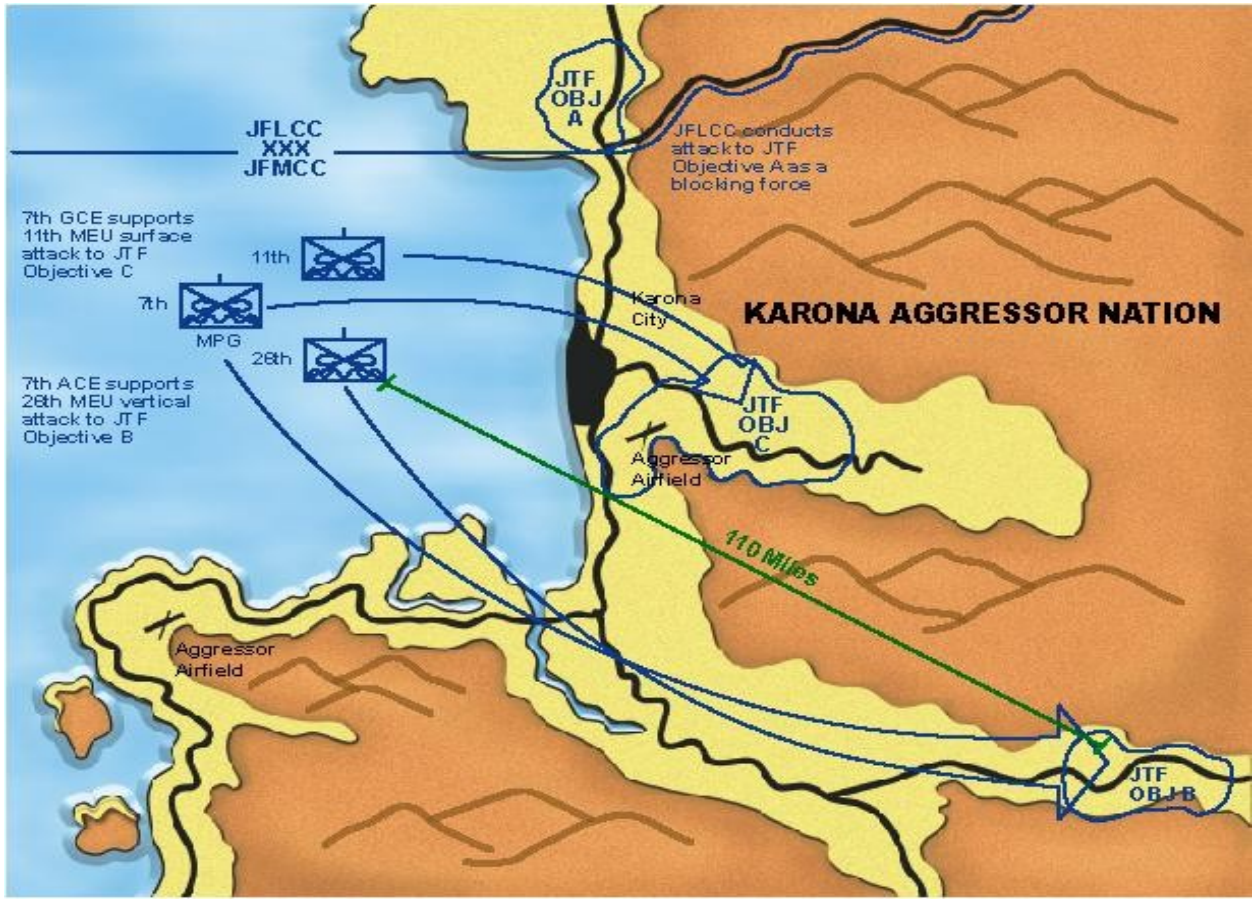
Scheme of Maneuver



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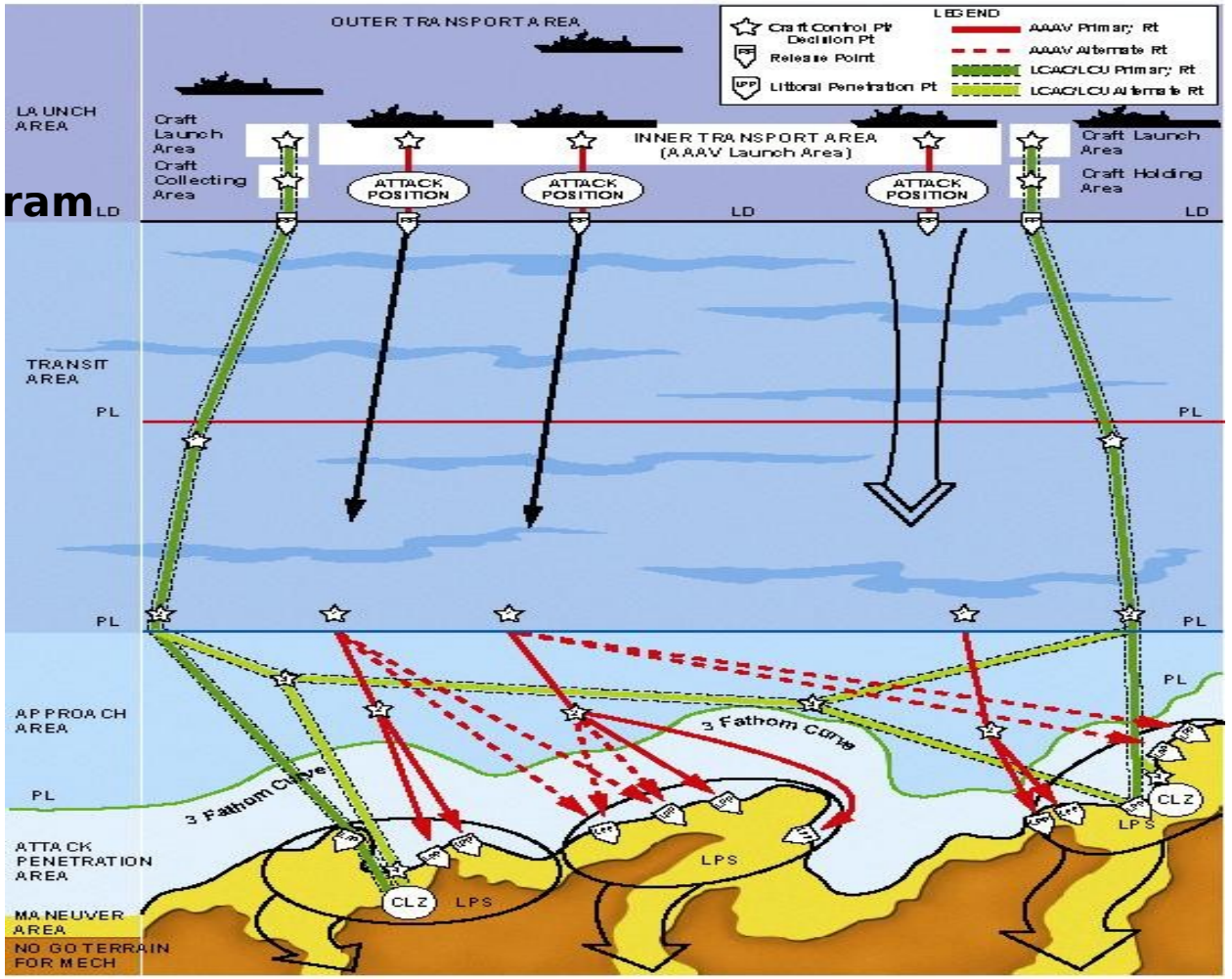
Landing Area Diagram for Notional LPZ.



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Aircraft Availability and Required Sorties

Aircraft Type	MEU Aircraft (2 MEUs)	MEB Aircraft	MEB Squadrons	Total Aircraft	Readiness Rate	Aircraft Required	D-Day Sorties Flown	Sortie Rate
MV-22	24	48	4	72	.80	49	195	4.0
CH-53E	8	20	1	28	.70	17	76	4.5
AH-1Z	8	18	1	26	.75	19	48	2.5
UH-1Y	6	9	1	15	.75	4	8	2.0
JSF	12	40	2	52	.85	16	32	2.0
AEA	--	5	1	5	.85	2	6	3.0
KC-130J	4	12	1	16	.75	5	15	3.0

NOTE: Surge attrition rates (first 7 days): .25 per 100 sorties for JSF; 5 per 100 sorties of all others. Sustained rates (next 8 days) are one half of the surge rates.

Aircraft readiness rate based on future (2015) rates.

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Conclusion:

Planning and execution of the STOM operation within the scenario resulted in the following metrics:

- **Conducted forcible entry operations ashore by projecting a Vertical TF consisting of two reinforced battalions 110nm in 8 hours (during the hours of darkness).**

- **Conducted forcible entry operations ashore by projecting a Surface TF consisting of two reinforced battalions OTH in the hours of darkness.**

- **Demonstrated the capability to close a MEB force of nearly 14,000 Marines within a seven-day period using a multi-dimensional strategic lift assets.**

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Conclusion cont:

- **On D+8, TF Vertical and TF Surface totaled 4,861 personnel and 566 vehicles.**

- **On D+9, TF Vertical and TF Surface totaled 6,753 personnel and 894 vehicles.**

- **On D+9 the maneuver forces ashore required 72.9 S/Ts of Class I, 128.4 S/Ts of CL III, and 96.7 S/Ts of CL V.**

- **On D+10 to D+14 the maneuver forces ashore were sustained primarily by air assets carrying 101.4 S/Ts of Class I, 213.5 S/Ts of CL III, and 157.3 S/Ts of CL V.**

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Conclusion cont:

Desired Capabilities/Systems:

- Rapid Force Closure
- Phased At-sea Arrival and Assembly
- Selective Offload
- Integrated Power Projection
- Persistence and Sustainment
- Reconstitution at Sea
- Ships and Landing Craft
- CH-53 SLEP
- MV-22
- AAAV
- UAV/UUV/UCAV/UGV
- OTH C2 (COP and Joint interoperability)
- CSS/Logistics
- MCM
- Indirect Fire (EFSS)
- MEFV

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Conclusion cont:

A STOM Capable Force Provides The JFC the Following Capabilities:

- **Joint/Multinational Enabling**
- **Strategic Agility**
- **Operational Reach**
- **Tactical Flexibility**
- **Support and Sustainment**

STOM CONOPS; interim process, lays the foundation for continued study, wargaming, and experimentation.

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QUESTIONS?

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Back-Up Slides

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Principles:

The STOM CONOPS was developed by applying the basic principles of the concepts of expeditionary maneuver warfare (EMW), operational maneuver from the sea (OMFTS), and ship to objective maneuver (STOM) to an operational scenario.

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Scenario:

- The scenario takes place in the winter of 2015.
- The battle within the scenario is a snapshot, and focuses on the MAGTF's participation in a larger campaign conducted by the combatant commander. The JTF has the mission of reopening and clearing international SLOC along the coast of Karona. The scenario assumes whatever actions were planned prior to the moment have taken place and that defensive engagements have occurred.
- The AO is the southern area of Karona that borders the Sea of Karona and controls international transshipment.

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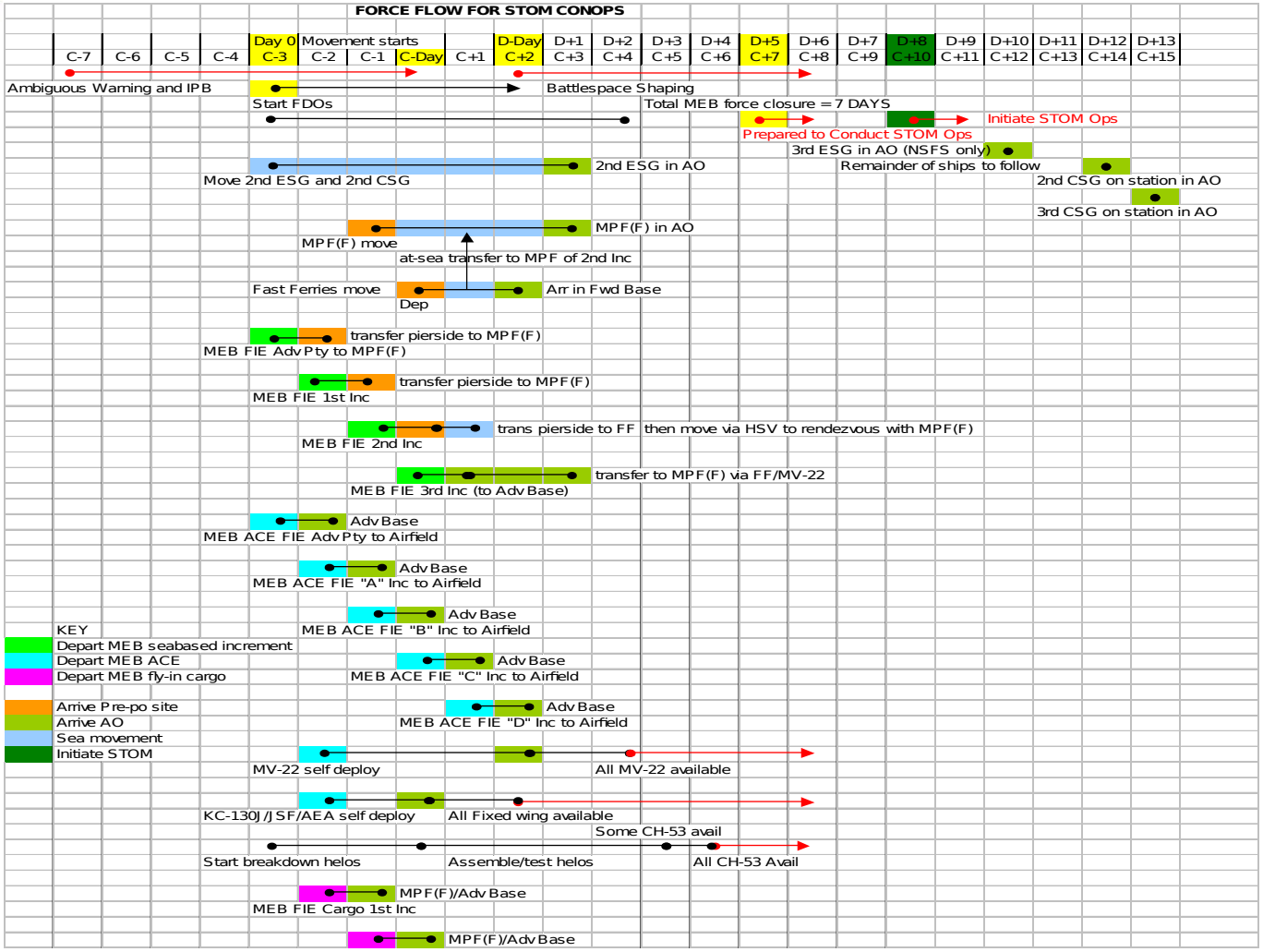
Force Closure


FORCE FLOW FOR STOM CONOPS
C-7 C-6 C-5 C-4 Day 0 C-3 C-2 C-1 C-Day C+1 D-Day C+2 D+1 C+3 D+2 C+4 D+3 C+5 D+4 C+6 D+5 C+7 D+6 C+8 D+7 C+9 D+8 C+10 D+9 C+11 D+10 C+12 D+11 C+13 D+12 C+14 D+13 C+15
Movement starts
Ambiguous Warning and IPB
Battlespace Shaping
Start FDOs
Total MEB force closure = 7 DAYS
Initiate STOM Ops
Prepared to Conduct STOM Ops
3rd ESG in AO (NSFS only)
2nd ESG in AO
Remainder of ships to follow
Move 2nd ESG and 2nd CSG
2nd CSG on station in AO
3rd CSG on station in AO
MPF(F) in AO
MPF(F) move
at-sea transfer to MPF of 2nd Inc
Fast Ferries move
Dep
Arr in Fwd Base
transfer pierside to MPF(F)
MEB FIE Adv Pty to MPF(F)
transfer pierside to MPF(F)
MEB FIE 1st Inc
trans pierside to FF
then move via HSV to rendezvous with MPF(F)
MEB FIE 2nd Inc
transfer to MPF(F) via FF/MV-22
MEB FIE 3rd Inc (to Adv Base)
Adv Base
MEB ACE FIE Adv Pty to Airfield
Adv Base
MEB ACE FIE "A" Inc to Airfield
Adv Base
MEB ACE FIE "B" Inc to Airfield
KEY
Depart MEB seabased increment
Depart MEB ACE
Depart MEB fly-in cargo
Arrive Pre-po site
Arrive AO
Sea movement
Initiate STOM
Adv Base
MEB ACE FIE "C" Inc to Airfield
Adv Base
MEB ACE FIE "D" Inc to Airfield
MV-22 self deploy
All MV-22 available
KC-130J/JSF/AEA self deploy
All Fixed wing available
Some CH-53 avail
Start breakdown helos
Assemble/test helos
All CH-53 Avail
MPF(F)/Adv Base
MEB FIE Cargo 1st Inc
MPF(F)/Adv Base

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MEB Troop List

	11th MEU	26th MEU	Remaining MEB Forces (Seabased)	Remaining MEB Forces (Shorebased)	Total
CE	167	167	143		477
GCE	1,333	1,333	4,163		6,829
ACE	593	593	2,094	1,873	5,153
CSSE	228	228	1,043		1,499
Totals	2,321	2,321	7,443	1,873	13,958

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MEB Equipment List

Principal End Items	11th MEU	26th MEU	Remaining MEB Forces (Sea-based)	(Shore-based)
AAAV	14	14	106	-
M88 Recovery Vehicle	25	25	60	-
LAV	4	4	29	-
ABV	1	1	7	-
M1Tank	-	-	5	-
	8	8	8	-
EFSS	-	-	18	-
LW 155mm	-	-	6	-
HIMARS	139	139	1,034	37
HMMWV (all variants)	27	27	466	10
MTVR (all variants)	-	-	68	2
LVS (all variants)	9	9	248	19
Total Vehicles:	219	219	2,029	68
Engr Equipment				
	12	12	48	-
MV-22	3	3	9	-
UH-1Y	6	6	18	-
AH-1Z	4	4	20	-
CH53E(SLEP)	2	2	6	-
UAV	6	6	-	40
STOVL JSF	-	-	-	12
KC-130J	-	-	-	5
AEA				

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Forces Ashore on D+8 (STOM Ops Conducted)

	TF VERT		TF SURF		
	2/6(Rein)	2/7(Rein)	1/1(Rein)	1/7(Rein)	TOTAL
PERSONNEL	1,143	1,010	1,288	1,420	4,861
Major End Items					
AAAV	-	-	28	48	76
LAV	25	-	25	25	75
M1Tank	-	-	8	14	22
ABV	-	-	1	1	2
M88 Recovery Veh	-	-	-	2	2
EFSS	8	8	8	-	24
LW 155mm	-	-	-	6	6
HIMARS	-	-	-	-	-
HMMWV (all variants)	88	88	96	82	354
MTVR (all variants)	-	-	5	21	26
LVS (all variants)	-	-	-	-	-
Total Vehicles:	2	2	2	3	9
Engr Equipment	115	90	165	196	566

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Forces Ashore on D+9

	TF VERT		TF SURF			OTHER	TOTAL
	2/6(Rein)	2/7(Rein)	1/1(Rein)	1/7(Rein)	3/7(Rein)	7th MEB	
PERSONNEL	1,143	1,010	1,288	1,420	1,420	472	6,753
Major End Items							
AAAV	-	-	28	48	48	4	128
LAV	25	-	25	25	25	-	100
M88 Recovery Veh	-	-	8	14	14	-	36
M1Tank	-	-	1	1	1	-	3
ABV	-	-	-	2	2	-	4
EFSS	8	8	8	-	-	-	24
LW 155mm	-	-	-	6	6	6	18
HIMARS	-	-	-	-	-	6	6
HMMWV (all variants)	88	88	96	82	82	90	526
MTVR (all variants)	-	-	5	21	21	30	77
LVS (all variants)	-	-	-	-	-	-	-
Total Vehicles:							
Engr Equipment	2	2	2	3	3	2	14
	115	90	165	196	196	132	894

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Sustainment

D+9 Resupply Requirements					
TF	Class I (s/t)		Class III (s/t) Fuel	Class V (s/t) Ammo	Totals
	Food	Water			
Surface	6.9	33.7	113.2	67.1	220.9
Vertical	5.5	26.8	15.2	29.6	77.1
Total	12.4	60.5	128.4	96.7	298.0

D+10 to D+14 Daily Sustainment Requirements					
TF	Class I (s/t)		Class III (s/t) Fuel	Class V (s/t) Ammo	Totals
	Food	Water			
Surface	11.8	57.3	202.9	136.6	408.6
Vertical	5.5	26.8	10.6	20.7	63.6
Total	17.3	84.1	213.5	157.3	472.2

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Aircraft Capabilities

- **MV-22s carry a maximum of 24 Marines.**
- **CH-53Es carry a maximum of 36 Marines.**
- **CH-53Es external lifts are limited to 30,000 pounds (two vehicles or one LAV per external lift). Average external load airspeed 125 kts.**
- **MV-22 external loads are configured for 10,000 pounds or less (one vehicle per lift). Average external load airspeed 135 kts.**
- **Ideal ambient conditions prevail throughout the operation (15 oC, LZ altitude**
  1,400 feet above mean sea level).
- **AH-1Z and UH-1Y helicopters are fueled and armed from LPDs and MPF ships. Each platform provides 90 minutes time on station during the surface attack (continuous coverage) and 60 minutes during the vertical assault (30 minute gaps covered by JSF) while working from sea-based platforms located 25 nm from the coast.**

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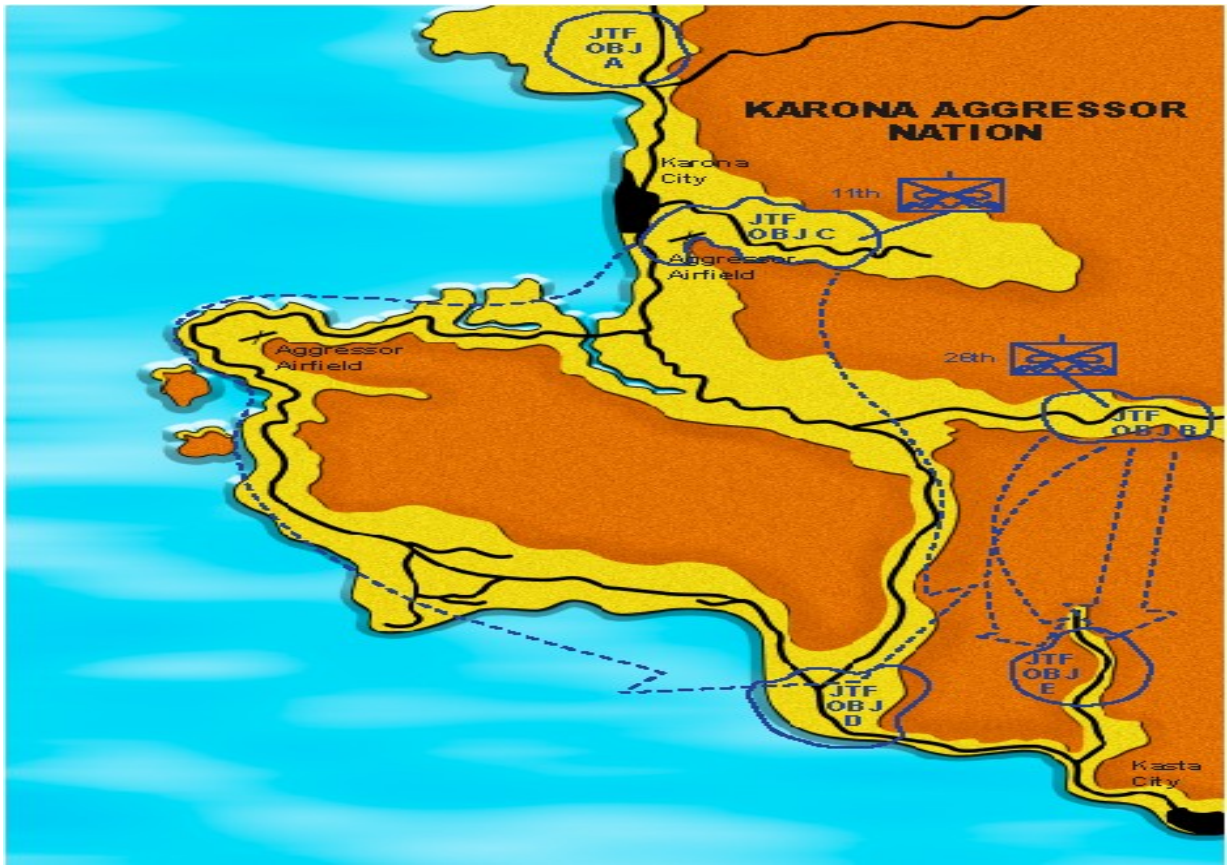
Follow-on Mission



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Sustainment

Sustainment Sorties								
	D+9				Daily Sustainment After D+9			
	Objective B		Objective C		Objective B		Objective C	
	V-22	CH-53	V-22	CH-53	V-22	CH-53	V-22	CH-53
Food	2		2		2		3	
Water		3		3		3		6
Fuel		2		11		2		20
Ammunition	6		14		5		27	
Total Sustainment	8/5		16/14		7/5		30/26	
Total Sorties	44 V-22/19 CH-53				37 V-22/31 CH-53			
Total Aircraft	12 V-22/8 CH-53				12 V-22/10 CH-53			
Time to Complete	5 hours				5 hours			

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Aircraft Availability and Required Sorties

Aircraft	Total	Air-base	LHD-1	LHD-2	LPD-17	LPD-18	LSD-20	LSD-21	MPF-1	MPF-2	MPF-3	MPF-4	MPF-5	MPF-6
MV-22	72		12	12					12	12	12	12		
CH-53E	28		4	4					6	6	4	4		
AH-1Z	26		4	4		4							7	7
UH-1Y	15		3	3		2							3	4
JSF	52	40	6	6										
AEA	5	5												
KC-130J	16	16												
Disposition of Air Assault Forces														
Troops	2,064		304	208	448				432	636	24	12		
HMMWVs	162		38		42				32	38	6	6		
LAVs	25								25					
Seetrac	4				2				2					